


DEPARTMENT OF
ECOLOGY
State of Washington

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) PERMIT

Issued To:	BP Cherry Point Refinery
Facility Location:	4519 Grandview Road Blaine, Washington 98230
Permit Number:	PSD No. 5, Amendment 3
Date of Permit Issuance:	July 16, 2019
Effective Date of Permit:	July 16, 2019

This approval is issued pursuant to the regulations for the Prevention of Significant Deterioration (PSD) set forth in the Washington Administrative Code 173-400-700. Based upon the application submitted by the BP Cherry Point Refinery (BP) dated November 14, 2018, and additional information received dated March 8 and April 11, 2019, the technical analysis performed by the Department of Ecology (Ecology), Ecology now finds the following:

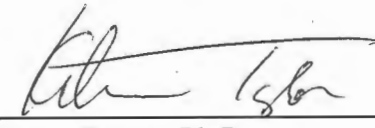
PREPARED BY:


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7/16/18 19
Date

APPROVED BY:


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Acting Air Quality Program Manager
Washington Department of Ecology

7/16/19
Date

Findings

1. BP has applied for an amendment of Prevention of Significant Deterioration (PSD) permit No. 5, Amendment 2 to modify the North Vacuum Heater at the BP Cherry Point Refinery. The modification includes replacing the piping inside the North Vacuum Heater and the existing heater burners with ultra-low nitrogen oxide (NO_x) burners. BP's analysis shows that the project emission increase is not significant, and therefore not subject to PSD review.
2. PSD No. 5, Amendment 3 revises the NO_x limit to be consistent with the allowable emission established under OAC 273c issued by Northwest Clean Air Agency (NWCAA) to update the performance of the modified heater with the ultra-low NO_x burners.
3. PSD No. 5, Amendment 3 removes hydrogen sulfide (H₂S) emission limits from the permit because NO_x is the only regulated pollutant that subject to PSD review under the original PSD No. 5 issued December 17, 1985.
4. BP West Coast Products, LLC (BP, formerly British Petroleum) operates a petroleum refinery in Ferndale, Washington, formerly owned by ARCO Petroleum Products Company (ARCO), and known as the BP Cherry Point Refinery.
5. Ecology finds that all requirements for PSD have been satisfied. Approval of the PSD application is granted subject to the following conditions.

Approval Conditions

1. Limit fuel combusted in the North Vacuum Heater to natural gas and refinery fuel gas.
2. The maximum heat input rate of the North Vacuum Heater shall not exceed 117 MMBtu/hr, based on higher heating value and calendar day basis.
3. Do not allow NO_x emissions from the North Vacuum Heater to exceed the following applicable limits based on operating mode duration at any time, including start-up and shutdown.

While operating in balanced (forced) draft mode, comply with one of the limits in 3.a., and the limit in 3.b.

- a. Sixty ppmvd NO_x at zero percent oxygen determined daily on a 30-day rolling average basis or 0.060 lb/MMBtu (HHV) determined on a 30-day rolling average basis.
- b. 7.0 lb/hr based on a calendar day average.

While operating in natural draft mode for 30 or more consecutive days, comply with one of the limits in 3.c., and the limit in 3.d.

- c. Forty ppmvd NO_x at zero percent oxygen determined daily on a 30-day rolling average basis or 0.040 lb/hr based on a calendar day average.
- d. 4.7 lb/hr based on a calendar day average.

While operating in natural draft mode for fewer than 30 consecutive days, comply with one of the limits in 3.a., and the natural draft mode mass emission rate limit in 3.d.

Determine compliance with this condition by installing, calibrating, maintaining, and operating a CEMS to measure NO_x and O₂ in North Vacuum Heater exhaust. The monitor must meet the appropriate requirements of 40 CFR 60 Subpart Ja, 40 CFR 60 Appendices B and F, NWCAA Section 367, and NWCAA Appendix A.

Determine the F-factor of the fuel gas stream no less frequently than once per calendar week according to the monitoring requirements in 40 CFR 60.107a(d)(1)-(4). When electing to comply with the heating value based limits in 3.a. and 3.c., determine the F factor of the fuel gas stream no less frequently than once per day according to the monitoring requirements in 40 CFR 60.107a(d)(1)-(4).

4. BP shall maintain records of all measurements from the continuous monitoring system, all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices. The records shall be retained for at least five years following the date of such measurements, maintenance, reports, and records generated.
5. Any activity that is undertaken by the company or others, in a manner that is inconsistent with this determination shall be subject to department enforcement under applicable

regulations. Nothing in this determination shall be construed to relieve the company of its obligations under any state, local, or federal laws or regulations.

6. Access to the source by EPA, state or local regulatory personnel shall be permitted upon request for the purpose of compliance assurance inspections. Failure to allow such access is ground for revocation of this permit.